SDMS DocID 460319

HPS
Harvard Project Services LLC

Via U.S. Mail

January 22, 2007

Superfund Records Center
SITE: Wells G&H
BREAK: 2.5
OTHER: 4002

Joseph F. LeMay, P.E.
Remedial Project Manager
US EPA – Region I
1 Congress Street, Suite 1100 (HBO)
Boston, MA 02114-2023

Re: Changes to carbon tanks and piping
UniFirst Corporation
Wells G&H Site, Woburn, MA

Dear Mr. LeMay:

During the last year of operations at the UniFirst treatment system temporary carbon tanks have been used in place of the two carbon tanks installed in 2003. The epoxy coating of the 2003 tanks failed and the tanks began to leak slowly. The original carbon tanks, manufactured by TIGG, have a rubber lining that has withstood the test of time very well; however, the exterior of these tanks and the fittings are showing their age.

UniFirst has developed a plan to replace all four steel carbon tanks with four fiberglass, polyethylene-lined tanks. These tanks, which have the same carbon capacity as the existing tanks, will be placed in line along the south wall of the treatment plant. Each tank will have an influent line and air vent in the top cover, which also serves as the manway for servicing the carbon. At the bottom of each tank there will be an effluent line and a drain valve. The fixed piping and valve system constructed when the system was changed to carbon-only treatment in 2003 will be removed and replaced with a system using flexible hoses. Any new piping installed to make the connections will be 2" diameter Schedule 80 PVC or 2" diameter flexible hose.

The revised tank and piping layout is shown in the enclosed piping layout drawing. The revisions to this drawing reflect the changes associated with the new carbon vessels and the new piping. There are no plans for changes in the operational procedures for any of the other equipment, in the types of information being monitored by the data logger, or in any other operational aspect of the treatment system. Upon completion of the installation, UniFirst will update the Operations and Maintenance Plan to reflect the as-built conditions and provide a copy to EPA.

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We anticipate that a plant shutdown of up to one week will be needed to drain, empty and remove the existing tanks, install the new tanks and carbon, reconfigure the piping and test the installation. UniFirst has ordered the fiberglass tanks and expects delivery in mid-February. The installation is likely to be done in late February or early March. I would appreciate your approval of this proposed change to the tanks and piping by February 9.

Should you have any questions, please call.

Sincerely,

Timothy M. Cosgrave
Project Manager

TMC:hs
enclosure

cc: Jennifer McWeeney, BWSC, DEP
David Sullivan, TRC

POINT OF EXIT THROUGH SLAB INTO 4" DISCHARGE PIPE SEE DETAIL 3/2

4" GRAVITY DISCHARGE PIPE

RISER FOR CARBON BACKWASH INFLUENT VALVES G3 & B25 ON RISER

DISCHARGE TANK (3000 GAL)

RISERS FOR ELEVATED LOOP

(HIDDEN)

MANWAY 21" DIA.

SITE TUBE/MANOMETER

ON RISER

BACKWASH PUMP

1" SCH. 40 PVC

BACKWASH REINJECTION

FILTER BACKWASH FEED

CARTRIDGE FILTER

SEDIMENT STRAINER

PUMP

FLOW INDICATOR

FILTER BYPASS

TEST FLOW LINE FROM FILTER BACKWASH

2" MODEL 2288 FLOW SENSOR W/TEE

MULTI-MEDIA PRESSURE FILTER

1" PRESSURE RELIEF VALVE MODEL 250-100 (100psi) BY ITT GRINNELL

FLOW SWITCH NEMA 4X MODEL 4S20 BY WATTS

ANNUNC. PANEL

CONTROL PANEL

PUMP CONTROLS

2" PVC SDR21 INFLUENT LINE FROM WELL UC22

2" G.S. PIPING 18"

2" ADAPTOR G.S. TO PVC

36"

2" AUTO-CONTROL BALL VALVE BY G.FISCHER TYPE 105 W/MANUAL OVERRIDE & E420/PE-22 POSITIONER CONTROL WITH MOUNTING BRACKET

DATA LOGGER

POINT OF ENTRY THROUGH SLAB SEE DETAIL 3/2

BACKWASH SETTLING TANK (3000 GAL)

FILTER BACKWASH DISCHARGE

2" ANGLE DIAPHRAM CHECK VALVE MODEL 81-01 BY CLA-VAL INSTALL 0-200psi PRESSURE GAUGE & 1/4 TURN BALL VALVE ON RISER BELOW

"ACO DRAIN" SPILL CONTAINMENT CURB (TYP.)

MANWAY 21" DIA.

SITE TUBE/ MANOMETER

CARBON BACKWASH INLET HANG OVERHEAD

CARBON BACKWASH OUTLET HANG OVERHEAD

1 1/2" PVC SCH. 40 SUMP DISCHARGE PIPE,

FLOOR TRENCH DRAIN

SUPER HEAVY DUTY DRAIN SYSTEM "ACO DRAIN" MODEL S-100 (TYP.) SEE DETAIL 3/5

OFFICE SPACE

FLEXIBLE HOSE (TYP.)

NO. 1 CARBON TANK

NO. 2 CARBON TANK

NO. 3 CARBON TANK

NO. 4 CARBON TANK

16" SQUARE SUPPORT PIER (TYP. OF 4)

EYEWASH & EMERGENCY SHOWER

WATER SUPPLY SHUT-OFF ON RISER

PRESSURE GAUGE

TRANSDUCER

FLOOR TRENCH DRAIN

BW IN

BW OUT

TEE WITH 1/4" FEMALE N.P.T. AND PRESSURE

ELECTRICAL PANEL

ELECTRICAL PANEL

4" PVC SDR35 - CUT INTO P.E. SUMP AND SEAL ALL PENETRATIONS (TYP.)

POLYETHYLENE (P.E.) SUMP - SEE DETAIL 1/5

OVERHEAD PIPING

1 1/4" COPPER WATER SUPPLY LINE

NOTE: ALL PIPING SOLVENT WELD, 2" PVC SCH. 40 EXCEPT WHERE NOTED

WALL TO FLOOR WATER SEAL - SEE DETAIL 6/5

SPILL CONTAINMENT CURB

LEGEND:

- GLOBE VALVE
- BALL VALVE
- GATE VALVE
- CHECK VALVE
- 3-WAY BALL VALVE
- PRESSURE GAUGE
- PRESSURE REGULATOR
- SAMPLE TAP
- EXISTING PROCESS PIPE
- NEW PROCESS PIPE

REV.	DATE	DESCRIPTION	BY	APP.

DRAWING TITLE: PIPING LAYOUT
CARBON SYSTEM MODIFICATIONS

PROJECT: GROUNDWATER TREATMENT SYSTEM
WOBURN, MASSACHUSETTS

CLIENT: UNIFIRST CORPORATION
WILMINGTON, MASSACHUSETTS

SCALE: NOT TO SCALE
DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
APPROVED BY:
DRAWING NO.
PROJECT NO.